

# Exploring the black hole horizon

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## Abstract

We propose a method for exploring the black hole horizon in the presence of a one-loop excitation in the presence of a perturbation theory of gravity. This method is applicable, for instance, to the partition function of a perturbation theory of gravity in the presence of a weak scalar field. We show that the black holes of the perturbation theory of gravity have no horizon. We also point out a parameter which can be used to determine the black hole horizon in the presence of a weak scalar field. Our method can be used to determine the black hole horizon of the solar system.